The Stout Institute Bulletin

Eighteenth
Annual Catalog
1920-1921

Menomonie, Wisconsin

Box1 Folder 15

THE STOUT INSTITUTE BULLETIN

ANNOUNCEMENT

1920-1921

BOARD OF TRUSTEES

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CALENDAR FOR 1920–1921

Fifteenth Annual Summer Session begins July 26, 1920.

Summer Session ends August 27, 1920.

Eighteenth Regular Session begins September 13, 1920.

Holiday vacation December 17, 1920, to January 4, 1921.

First Semester ends January 28, 1921.

Second Semester begins January 31, 1921.

Eighteenth Regular Session ends June 3, 1921.

ANNOUNCEMENT

FOR THE EIGHTEENTH ANNUAL SESSION

OF

THE STOUT INSTITUTE

MENOMONIE, WISCONSIN

1920–1921

OFFICERS OF ADMINISTRATION

L. D. HARVEY, President of The Stout Institute.

CLYDE A. BOWMAN, Director of Industrial Arts School.

DAISY ALICE KUGEL, Director of Household Arts School.

GEORGE S. MILLER, Director of Physical Education.

GRACE M. DOW, Director Bertha Tainter Hall.

MARY L. CASE, Preceptress Tainter Hall Annex, Registrar.

RUTH TOBEY, Librarian.

CHRISTINE HALSETH, Assistant Librarian.

B. M. FUNK, Business Manager.

J. T. BURNS, Engineer.

ADELAIDE C. FRENCH, Secretary.

LEIGHTON STEVENS, Stenographer.

FACULTY

INSTRUCTORS FOR THE SCHOOL YEAR

L. D. HARVEY, Psychology and Sociology.

Milton College, B. A., 1872; Ph. D., 1898. High School Principal, 1873-79; City Superintendent, 1880-1885; Normal Schools, 1885-1898; State Superintendent, 1899-1902; Superintendent Stout Training Schools, 1903-1908; President Stout Institute, 1908-

CLYDE A. BOWMAN, Vocational Education, Administrative Problems, Organization of Industrial Arts, Modern Industry.

River Falls, Wis., State Normal, 1907; Stout Institute, January, 1909; Columbia University Bachelor of Science Degree and Professional Diploma in Supervision of Industrial Arts, 1915; graduate work Columbia University, 1916, 1919; Summer Sessions Stout Institute, 1907, 1908, 1909, 1911, 1913, University of Wisconsin 1912, Columbia University 1915. Shop Instructor, El Paso, Texas, 1909; Director Manual Arts, City Schools, Stillwater, Minn., 1909-1911; Director Dept. Manual Arts, State Normal, Stevens Point, Wis., 1911-1914, 1915-1916 (Leave of absence 1914-15); Instructor and Associate Advisor in Industrial Arts, Teachers College, Columbia University, New York City, 1916-1919 (Leave of absence while in the service); Stout Institute, 1919-

FRED L. CURRAN, Supervision of Practice Teaching, Teaching Industrial Arts.

State Normal School, Stevens Point, Wis., 1905; Stout Institute, 1908; Bradley Polytechnic Institute summers, 1908, 1909. Teacher in public schools, 1898-1903; Principal State Graded Schools, 1905-1907; Stout Institute, 1908-

H. F. GOOD, Auto Mechanics, Electrical Work.

Iowa State College, B. S. in Electrical Engineering, 1913; B. S. in Agricultural Engineering, 1914; Instructor in Agricultural Engineering, Dunn County School of Agriculture, 1914-1918; Special training in gas engines, tractors, and automobiles with four years of practical experience; foreman of construction work in electric railway shops one and one-half years. Stout Institute 1918-

C. W. HAGUE, Printing, Electricity.

Practical printer, seven years' experience. Hamline University, 1912-1913; University of Wisconsin, Summer Session, 1915; Lawrence College A. B. 1917; one year's experience teaching drafting and applied mathematics for electricians, School of Engineering of Milwaukee; one year as instructor of printing, Vocational School, Appleton, Wis.; U. S. Radio School, Harvard University, Cambridge, Mass., 1918; Stout Institute, 1919-

HENRY O. GRUBERT, Wood Turning, Wood Finishing, Metal Finishing.

Stout Institute 1917. Served apprenticeship in wood turning shops; fifteen years' experience in all grades of wood turning; six years' experience in turning hard rubber, bone, ivory, and amber; five years' experience as shop manager. Stout Institute, 1913-

H. M. HANSEN, Cabinet Making, Mill Work, Saw Filing, Carpentry.

Fourteen years' experience in mill work and as pattern maker, carpenter, and draftsman; Stout Institute, 1912-

HENRY HOULE, Auto Mechanics.

High School graduate. Three months' technical training at the University of Wisconsin (army vocational training school); auto mechanics short course in farm mechanics at University of Illinois; University of Wisconsin extension course in electricity. Four years in the automobile trade; first class steam engineers papers from Minnesota and also from Milwaukee; eight months' work as telegrapher.

LAWRENCE HURST, History and Economics.

Indiana State Normal School, Diploma 1908; Indiana University, A. B. 1910; Columbia University, Summer Session, 1912; Wisconsin University, M. A. 1914; Illinois University, 1914-1915. Principal high school, New Harmony, Ind., 1910-1912; Acting Instructor of History, University of Colorado, 1915-1916; Head of Department of Social Science, Springfield, Illinois, High School, 1916-1918; the same at Covington, Kentucky, High School, 1918-1919; Stout Institute, 1919-

GEORGE F. MILLER, Physical Training, Swimming and Athletics.

Normal College N. A. G. U. Indianapolis, 1912; School for Athletic Coaches, University of Illinois, 1913; Diploma Harvard University School of Physical Education, 1914; Camp Athletic Director 31st Division, Camp Wheeler, Macon, Ga., Summer 1917; School for Athletic Coaches University of Wisconsin, 1918; Lecturer on Football, Normal College, Indianapolis, 1919; Athletic Director Evansville, Ind., Junior and Senior High School, 1912-1917; Stout Institute, 1917-

H. C. MILNES, Machine Shop Practice, Foundry Work, Pattern Making.

Armour Institute, 1904-1906; Columbia University, summer, 1909; Chicago University, summers, 1910, 1911; four years' practical work in machine trades; teacher of Manual Arts, Evansville, Ind., 1909-1916; Stout Institute, 1916-

E. J. NEARY, Auto Mechanics.

Kalamazoo, Michigan, High School, graduate; Western State Normal School, 1913. Five years' practical work in auto factories; one year assistant to engineer, Great Western Auto Co.; Stout Institute, 1919-

J. E. RAY, Bricklaying, Cement Work, Drafting.

Williamson Trade School, 1908; Stout Institute, 1917; seven years' experience as journeyman bricklayer and foreman in various parts of the United States; Stout Institute, 1914-

F. E. TUSTISON, Mathematics, Science.

Graduate Ohio Wesleyan University, 1909; B. S. Summer session of Chicago University, 1916; summer session Case School of Applied Science, 1917; practical experience in electrical installation, motor testing, and cabinet making; Director of Gymnasium of Shattuck Military Academy, 1909-1910; Instructor of Science, Somerset High School, 1910-1920; Acting Superintendent of Somerset City Schools, 1919; Stout Institute, 1920-

R. L. WELCH, Forging and Sheet Metal Work.

James Milliken University, Department of Engineering, 1908-1911; Department of Industrial Education, 1914-1915; Stout Institute, summers, 1916, 1917; Bradley Polytechnic Institute, summer, 1919; ten years' experience in metal trades; Director of Industrial Arts, Somerset, Ky., City Schools, 1915-1916; Instructor in Mechanical Engineering, South Dakota State College, 1916-1918; Stout Institute, 1919-

DAISY ALICE KUGEL, Organization of Household Arts, Principles of Teaching, Principles of Education.

University of Michigan, A. B., 1900; Columbia University B. S. and diploma Teachers College, 1908. Teacher in public schools, 1902-1906; teacher of Domestic Science, Chautauqua, N. Y., summer, 1911; director of department of Home Economics, Stout Institute, 1909-

BERTHA BISBEY, Dietetics, Cookery.

Kansas State Normal, 1893-1894; University of Chicago, summer session, 1908; Stout Institute, 1912; summer session Teachers College, 1915. Teacher in public schools, Alma, Kansas, 1900-1903; Manhattan, Kansas, 1903-1908; teacher of Mathematics, Kansas State Agricultural College, Manhattan, Kansas, 1908-1909; Stout Institute, 1912-

CLARA LOUISE BOUGHTON, Cookery, Supervision of Practice Teaching in Foods.

State Normal School, Milwaukee, 1890-1893; Stout Institute, 1909-1910. Teacher in public schools, Manitowoc, 1893-1909; director Domestic Science, Racine, 1910-1911; Stout Institute, 1911-

MRS. H. W. CUTHBERTSON, Drawing and Design, Interior Decoration.

Normal Arts School, Boston; Normal Arts School, Chicago; George Frost Studio, 1901-1902; Art League, New York City, 1906-1907; New York School Fine and Applied Arts, 1917-1918; teacher Kansas City public schools; School of Design, and in the Conservatory of Music and Art, 1907-1916; New York School of Fine and Applied Arts, summer of 1918; Mary Baldwin Seminary, Staunton, Va., 1918;1919; Stout Institute, 1919-

GRACE M. DOW, Institutional Management.

St. Paul Teachers' Training School, 1897; University of Minnesota, summer session, 1910; Stout Institute, 1911. Teacher in public schools, St. Paul, 1897-1898; Stout Institute, 1911-

ETHEL FELDKIRCHNER, Household Management.

Stout Institute, 1916; Summer session, University of Chicago, 1917, 1918. Teacher of Household Arts, Winnetka, Ill., 1917-1919; Stout Institute, 1919-

BESSIE F. HOLMAN, Textiles, Supervision of Practice Teaching in Clothing.

Earlham College Richmond, Indiana, 1906-1907; Teachers College, Columbia University, Diploma Domestic Art, 1909; Teachers College, Columbia University, B. S. 1912. Teacher Household Arts, Georgia Normal and Industrial College, Milledgeville, Georgia, 1909-1911; Assistant in Household Arts, summer session, Teachers College, Columbia University, 1812; Teacher of Household Arts, State Normal School, Buffalo, New York, 1912-1916; Stout Institute, 1916-

ELEANOR JOHNSON, Cookery, Clothing.

State Normal, Mankato, Minn., diploma, 1910; Stout Institute, diploma, 1917; Teachers College, Columbia University, summer, 1919; University of Pittsburgh, B. S. and diploma in School of Education, 1920; teacher of Home Economics, Edgewood, Pittsburgh, Pa., 1917-1918. Pittsburgh Public Schools, 1918-1920; Stout Institute, 1920-

MABEL H. LEEDOM, Chemistry.

City Normal School, Dayton, Ohio, 1894; Stout Institute, 1910; Columbia University, summer session, 1913; Teachers College, B. S. 1919. Teacher in public Schools, Dayton, Ohio, 1895-1905; Stout Institute, 1910-1918, 1920-

MARY M. McCALMONT, Chemistry.

WestMinster College, New Wilmington, Pa.; graduate student, University of Omaha, Nebraska, 1911; University of Wisconsin, 1911-1912. Teacher in public schools, 1906-1907; principal of High School and supervisor of Music, Woodville, Ohio, 1907-1909; City Schools, Omaha, Nebraska, 1909-1911; Stout Institute, 1912-

MARY I. McFADDEN, Psychology, Public Speaking.

State Normal School, Oshkosh, 1897; University of Wisconsin, Ph. B., 1900; A. M., 1907; University of Chicago, Pm. M., 1901; Teachers College, Columbia University, January, 1908-June, 1908. Teacher Grand Rapids High School, 1891-1892; principal Menomonee Falls High School, 1892-1893; assistant principal Oconto High School, 1893-1895; associate supervisor of practice, Oshkosh Normal School, 1901-1906; acting assistant professor of Education, University of Kansas, one semester, 1906-1908; principal Muskegon City Normal School, 1909-1910; supervisor of practice, teacher of pedagogy and music, Sauk County Training School, 1911-1912; Stout Institute, 1912-

ANNA McMILLAN, Dressmaking, Costume Design.

Stevens Point Normal, diploma; Stout Training School, diploma, 1908; Teachers College, Columbia University, B. S. 1915. Teacher public schools in Wisconsin; teacher Stout Institute, 1910-1914; assistant Teachers College, 1915-1916; director Textiles and Clothing, Lewis Institute, 1916-1919; Stout Institute, 1919-

MARY BURT MESSER, Home and Social Economics.

Vassar College, 1901-1902. Teacher in McKinley High School, Washington, D. C., 1902, 1903; head of English department, Washington College, 1907-1910; social worker in Association for Improving the Conditions of the Poor, New York, 1911, 1912; investigator of charitable institutions for Charity Organization Society, New York, 1912-1915; Stout Institute, 1916-

CLARA S. MILLER, Physical Training.

Normal College, N. A. G. U., Indianapolis, 1912; Sargent School of Physical Education, Cambridge, Mass., 1914; Evansville High School, 1912-1914. Director Woman's Department, La Crosse State Normal, School of Physical Education, 1914-1915; Stout Institute, 1919-

RUTH MARY PHILLIPS, English, Public Speaking.

University of Wisconsin, B. A., 1904; graduate work, University of Wisconsin, 1905, and one semester, 1909. Teacher in high school, Lodi, Wisconsin, 1904-1905; teacher in high school, Black River Falls, Wisconsin, 1906- 1910; Stout Institute, 1910-

MARJORIE SIME, Cookery, Food Study.

University of Minnesota, 1912-1913, summer sessions 1919, 1916; Stout Institute diploma, 1917; Teachers College, Columbia University, 1918, B. S. degree and diploma. Teacher Household Arts, Y. W. C. A., St. Paul, Minn., 1916-1917; State College, Pennsylvania, 1918-1919; Stout Institute, 1919-

FLORA SNOWDEN, Clothing, Textiles.

City Normal School, Dayton, O.; summer schools, Chautauqua, N. Y.; Cook County Normal School, Chicago; Martha's Vineyard, Mass.; Teachers College, Columbia University, B. S. and diploma in Household Arts Education; University of Chicago, Jan.-Aug., 1919; five months' shop work in Boston and New York City; teacher in grade schools and City Normal School, Dayton, O.; Teachers College, Kirksville, Mo., 1913-1918; Stout Institute, 1919-

MRS. HARRIET P. VINCENT, Home Nursing and Supervision of Infirmary.

Hospital training in Boston and Cleveland; private nursing experience; five years' experience in teaching home nursing and in charge of dispensary in Andrews institute, Willoughby, Ohio.

LOUISE WILLIAMS, Microbiology, Hygiene and Home Nursing.

McGill University, 1907; B. A. and diploma from McGill Normal School; Columbia University, M. A., 1911, and master's diploma in teaching of biological science, Teachers College, 1911. Teacher of Classics and Science, Dunham College, Quebec, 1907-1909; Stout Institute, 1911-

GENERAL INFORMATION

The Stout Institute is an institution supported by the State of Wisconsin to prepare teachers of the industrial and household arts. For this purpose there are provided four large thoroughly equipped buildings, The Household Arts Building, The Industrial Arts Building, The Gymnasium and the Trade Building. In addition there are also dormitories and a practice cottage and infirmary. The institution represents an investment of a million dollars.

PURPOSE AND ORGANIZATION

The school is organized primarily to prepare teachers, supervisors and directors of the industrial arts and of the household arts subjects. For administrative purposes there are two co-ordinated departments each taking care of its particular problems.

Students preparing for teaching in these fields are given a thorough grounding in the practical subjects of the industrial and household arts, related sciences, pedagogical subjects, English, economics, history and sociology. Every course has been organized with the definite purpose in mind of preparing teachers who shall know their subjects, and be able to teach them, and furthermore have an understanding and an appreciation of the larger aspects and responsibilities of their work.

VOCATIONAL EDUCATION

The Stout Institute has been designated by the State Board of Vocational Education as the training school for vocational teachers of trades and industrial subjects, and the first two years of the four-year course as the course of study for such teachers. Special courses are offered for directors and teachers of vocational schools during the summer session.

LOCATION

The Stout Institute is located in the city of Menomonie in western Wisconsin, sixty-six miles east of St. Paul on the Chicago & North Western Railway. Menomonie is also connected with Mississippi River points by the Chicago, Milwaukee & St. Paul Railway.

COURSES

Courses are offered in both departments leading to the Bachelor of Science degrees in Industrial Arts and Household Arts. These courses require four years of work beyond the regular four year high schools. Two year courses are also offered in both departments, open to high school graduates, leading to a diploma. No diploma is issued to any person who has not been a student in residence for at least one year.

Four summer sessions are considered the equivalent of one year's residence. Upon the completion of one of these courses, Industrial Arts or Household Arts, a diploma is issued, which by statute, is made the basis for the issuance of a life certificate, after two years' successful teaching in Wisconsin.

This certificate legally qualifies the holder to teach the subjects in which training has been taken, in the public schools of the state. The certificate is issued by the Wisconsin State Board of Examiners and is accepted in most of the other states. The diploma is given upon the completion of the first two years' work of the degree courses.

QUALIFICATIONS FOR ADMISSION

Graduation from a four year high school course, or equivalent preparation, is required for admission to each of the courses. A physician's certificate of good health and physical ability to carry on full work in the Institute, must be presented by each student when first entering the school. Two testimonials of good character are required.

CREDITS

Students who have had normal or collegiate training are given credit for such of the required work in the Institute courses as they have satisfactorily mastered. Successful experience in teaching Industrial Arts or Household Arts before entering Stout Institute, may reduce the amount of practice teaching required of the student.

ENROLLMENT

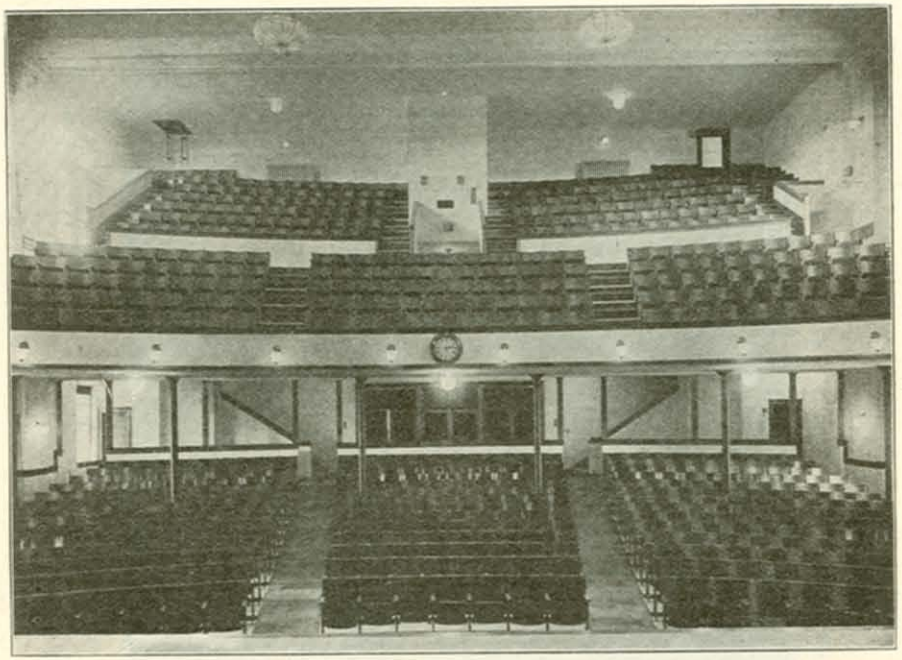
Persons who plan to enter the Institute should fill out an application for enrollment in advance. Blanks furnished by the Institute will be sent upon request. This enrollment blank when filled out, should be forwarded to the school together with two certificates of good character, a health certificate, and a copy of the applicant's high school credits, the latter on the special blank of the Institute. While advance enrollment is not absolutely necessary, it is advisable as misunderstanding and possible delay are thus avoided.

BUILDINGS AND EQUIPMENT

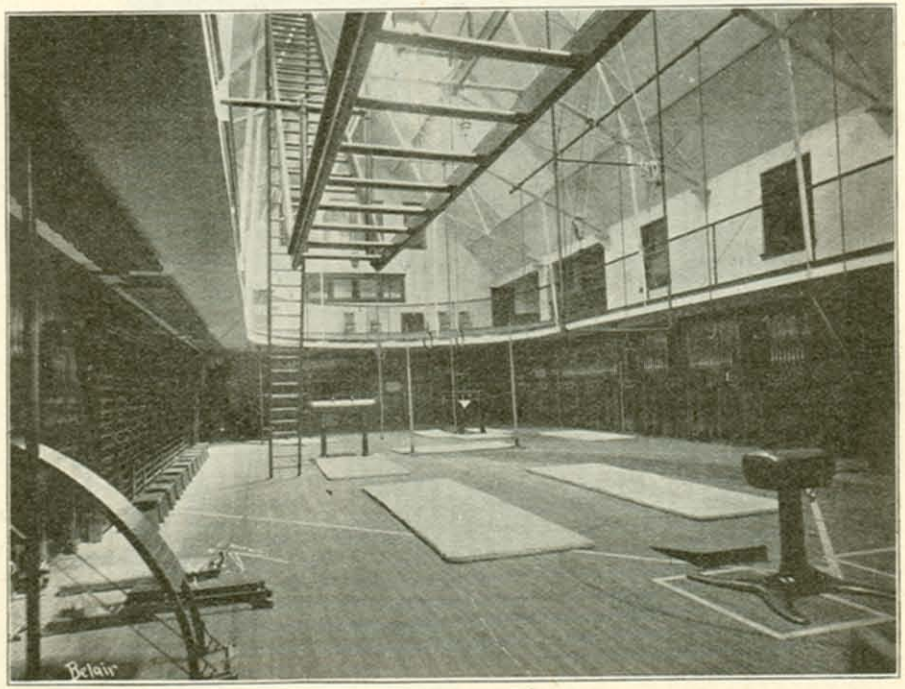
Industrial Arts Building

The first building to be erected of the group now used for instruction, was the Industrial Arts building. It is four stories high with light basement containing engine room, storage and work rooms. The ground floor plan is extended to a total area of 76 by 182 feet, and the annex contains the machine shop, forge shop, and foundry. All of these shops are well equipped.

The first floor contains wood turning shop, pattern making shop, demonstration room, and department offices. The second floor contains the print shop with connecting rooms, lecture room, exhibit room, one of the school kitchens with pantry and connecting dining room. The



THE STOUT AUDITORIUM



THE STOUT GYMNASIUM

third floor contains two drawing rooms, large lecture room, electrical wiring shop, and physics laboratory.

The fourth floor is given over entirely to an armory and basket ball floor. It has a steel arch trussed roof, providing a full area the size of the main building free from obstructions such as columns or partitions. Seats are banked up at the sides, accommodating five hundred people conveniently.

Gymnasium and Natatorium Building

The second building erected in this group was the School of Physical Training. The building is 66 by 132 feet, and two stories in height. It contains a very completely equipped gymnasium with running track, measuring room, locker rooms, recreation room, and bowling alleys on its west side. Its east side is given over largely to baths and contains a swimming pool, 30 by 70 feet, showers, and a well arranged series of rooms for Russian and Turkish baths. There are also locker rooms, dressing rooms, and social rooms in the east side of the building. The physical director's office is located near the main entrance.

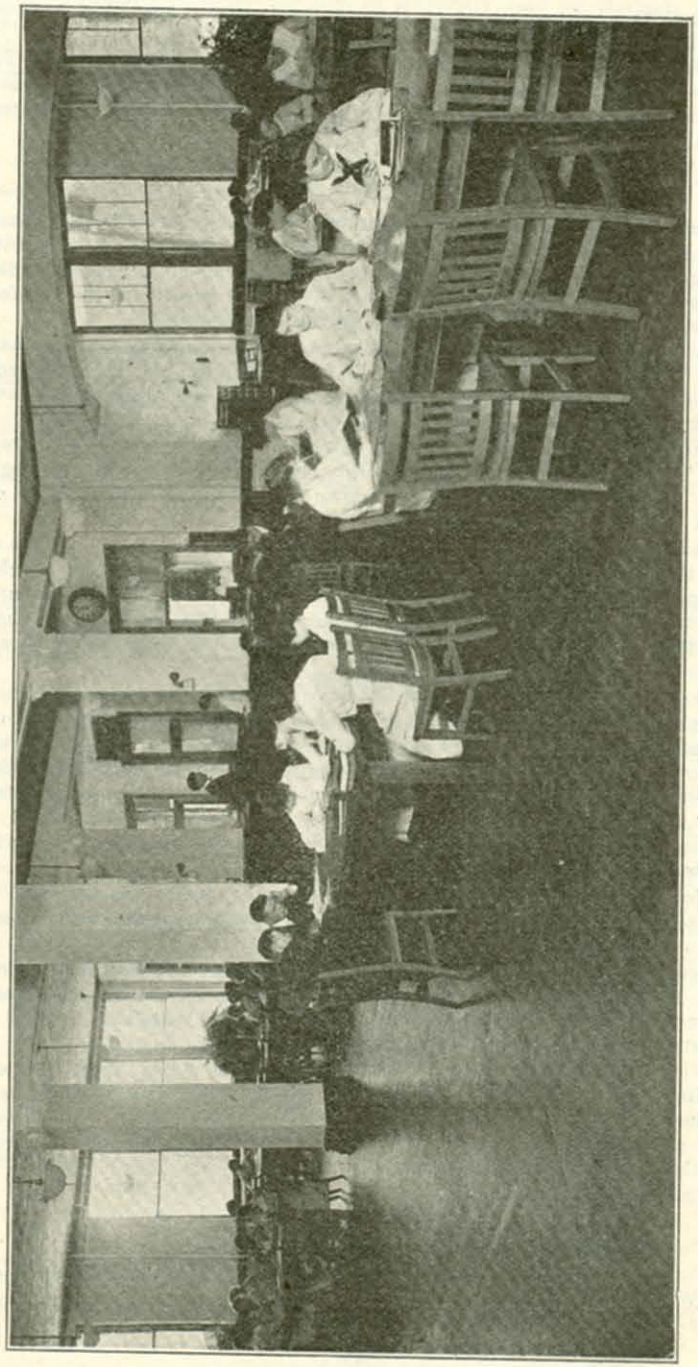
On the second floor of this building is The Stout Institute Club Room designed to furnish social pleasures and to foster good fellowship among the faculty and the students. This large room is furnished with pictures, a piano, reading material, a victrola, tables, chairs, games, an electric plate, and dishes. This recreation center is open daily; and in addition Friday evening, Saturday afternoon, Saturday evening and Sunday afternoon. With the aid of The Student Welfare Committee, the various school organizations supervise the Club Room and its activitites.

Building Trades Building

The third building erected for Stout classes was that given over to shops for teaching the building trades. It is 84 by 175 feet and two stories in height. A basement at one end of the building is entirely above grade level and contains the carpentry shop 36 by 80 feet. The ceiling of this shop is over twenty feet high and the shop is so constructed that a section of the outside wall 27 by 20 feet may be removed, making it possible to move a completed building directly to its proper site. At one end of the shop is a lecture balcony. At the other is a lumber balcony. A moist air dry kiln opens from the lumber balcony and extends into the mill, which adjoins the carpentry shop. The mill is very completely equipped with modern woodworking machinery.

A cabinet making shop is connected with the mill and provided with heavy benches, veneer press, sash and door clamp, and a complete glue room. The auto mechanics shop located in the next room is equipped with gasoline engines, automobile motors, burning and running-in machine, lathe, reboring machine, etc., for handling complete auto repairs. The bricklaying shop in the next room is being temporarily used for overflow auto mechanics work. The sheet metal shop on the second floor above the auto shop has a complete equipment including cornice brake, circular shear, burring, turning, and beading machines and proper stakes necessary for carrying on a complete course in sheet metal work.

A middle entrance leads to the second floor corridor and opens onto a conveniently arranged lecture room. A large shop on this floor is given over to painting and wood finishing, with a varnishing room and fireproof storage for finishing supplies connected. Two large rooms are equipped



PORTION OF THE STOUT LIBRARY

for architectural and machine drafting and contain an electric blueprinting outfit.

Elementary manual training is taught in a room especially planned for this work, opening upon this corridor. In addition to its necessary tools and benches, it contains several exhibits and conveniences of interest to the teacher of elementary work.

Household Arts Building

The last building erected at Stout was planned principally for household arts classes. It is 126 by 228 feet and four stories in height, with a high basement. Two large elevators are provided for students' use, one at each end of the main corridor. They add greatly to the comfort and convenience of those taking work in foods or science.

The Stout Institute library is located in this building on the main floor in the west wing. The room is large, well lighted, and well ventilated. In addition to the reading room, there is a magazine alcove, stack room, conference room, cataloging room, and repair room.

The general offices are located on the first floor and include the president's office, and those of the secretary, clerks, business manager, registrar, and telephone operator. Department offices, reception room, exhibit room and recitation rooms are also located on this floor.

The Auditorium, located in the east wing of the building, extends up for three stories, with a seating capacity for 800. It is thoroughly equipped as a modern theatre with stage 23 x 50 feet, proscenium arch 32 x 24 feet, decks, fly galleries, and scene loft fifty feet high. There are the usual dressing rooms and lavatories, and a stage switch board controlling all stage and house lights.

The stage equipment includes asbestos drop, picture screen, and both interior and exterior scenery. Special settings for the stage for use in concerts and for lecture work have been built by Stout students. Attention has been given to acoustics as well as to the decorative effect of such settings. A picture booth contains both stereopticon lantern and motion picture machine. Fire exits have been provided in all directions and are properly illuminated. Six doors open up at the rear for general exit.

Clothing, millinery, textiles, and dressmaking rooms occupy most of the second floor. They are supplemented by lecture rooms, fitting rooms, and offices.

Food and dietetics laboratories occupy most of the third floor, and are supplemented by dining rooms, pantries and lecture rooms. Several types of kitchen arrangement have been installed in order to illustrate the advantages of each for public school installation.

Science laboratories occupy most of the fourth floor. These are well equipped, well ventilated, and well arranged. This floor also contains rooms for drawing and design, interior decoration, a large lecture room and smaller lecture rooms. A general refrigerating system takes care of this floor as well as the third.

SCHOOL EXPENSES

Tuition is free for residents of Wisconsin. For students not residents of Wisconsin the tuition is one hundred dollars per year, one half payable at the beginning of each semester. A fee of twenty dollars per

year is charged to cover the cost of materials used by students in the industrial arts department. Students taking work in any courses not required for graduation, are charged an additional fee to cover actual cost of material used in such courses.

LABORATORY FEES

Laboratory fees in the household arts department are given in connection with the outlines of the courses.

In addition to the laboratory fee, students are required to pay for any breakage of equipment or damage to buildings for which they are responsible.

LIBRARY AND READING ROOM FEES

A fee of five dollars, payable at the opening of the school year, is required of each student.

All necessary text books are furnished from the loan text book library for the school year without any extra charge to students. The reference library is supplied with standard reference books needed to supplement textbooks in different subjects and with educational and technical periodicals adapted to the needs of the students.

INFIRMARY FEE

A fee of three dollars payable at the opening of each semester is required of each student. This fee entitles students in case of illness, to hospital and nursing service in the infirmary, but does not cover cost of board and physician's service.

REFUNDS

Students who are compelled to withdraw from the Institute by reason of illness, not due to poor physical condition or ill health existing before entering, are entitled to a refund of tuition from the date when notice is received of such withdrawal, at the end of the semester.

Students boarding in the dormitories are also entitled to a refund of whatever amount has been advanced for board beyond the date when notice is received of withdrawal. Refund for advance payment of room rent in the dormitories is allowed from the date when the room is again rented, and effort is made to secure an occupant at the earliest date possible. As books and supplies for which fees are charged have to be bought in advance in quantities necessary to supply the entire enrollment, no refund of fees is made in any case.

UNIFORMS

Young women attending the Institute are required to wear uniforms during the daily sessions. Men are required to wear white overalls and jumpers in the woodworking shops and brown overalls and working shirts in the metal working shops.

A gymnasium suit is required of each student taking physical training. It is required for all freshmen and sophomores.

Circulars of information regarding uniform and gymnasium suits for women will be sent to all enrolled students.

DORMITORIES

Bertha Tainter Hall accommodates about thirty young ladies. The hall is furnished with all modern conveniences, the rooms are electric lighted, and heated both by direct and indirect radiation, thus assuring ample heat and good ventilation.

Tainter Annex accommodates sixty-six young ladies and is situated on the same grounds with Bertha Tainter Hall. It is thoroughly suited to the purposes for which it is planned. The rooms are all arranged in suites of study and sleeping rooms, each suite for two students.

The charge for room for the school year for each student is seventy to eighty-five dollars, according to the size and location of the room. The charge for meals and a definite amount of laundry work for each student rooming in the halls is five dollars per week. A list of the different articles laundered weekly without additional charge is furnished each student.

The Institute authorities reserve the right to increase the price of table board a reasonable amount if advancing prices make it necessary.

Rooms in the dormitories will be available Saturday, September 11, 1920. Meals will be served beginning Sunday, September 12, 1920.

LIVING EXPENSES OUTSIDE THE DORMITORIES

There are no dormitory provisions for the young men. Good board and room may be secured in private houses close to the school at from six and a half to seven dollars per week.

THE SUMMER SESSION

Stout Institute summer sessions offer exceptional opportunities for supervisors or special teachers of manual training, industrial arts, domestic art and science, or physical training, and directors and teachers of vocational schools, to advance themselves along their special lines, either in technique or along the professional side. Superintendents and principals are finding in these summer sessions an opportunity for learning something of the content and method of school handwork. Grade teachers are perfecting themselves in special subjects through summer courses. Provision is made for outings and games so that a vacation may be combined with a summer course of study. The Summer Session catalog gives full information concerning the courses to be offered. The session opens July 26, 1920, and closes August 27, 1920. The following groups of courses are offered:

VOCATIONAL EDUCATION

Four Professional Courses; fifteen Shop Courses—for directors and teachers of vocational schools receiving state and federal aid.

INDUSTRIAL ARTS

Twenty-five Courses—for supervisors and teachers of industrial arts in all grades of schools.

HOUSEHOLD ARTS

Twenty-four Courses—for supervisors and teachers of household arts, for dietitians, and for institutional directors.

THIRD AND FOURTH YEARS' WORK

Ten Courses—for Stout graduates and others studying for the B. S. degree in Industrial Arts and Household Arts.

PHYSICAL TRAINING

Three Courses—for athletic coaches and others interested in athletic games and swimming.

THE DEMAND FOR GRADUATES

The demand for graduates of Stout Institute as teachers and administrators of industrial arts and household arts and in continuation and vocational schools is steadily increasing year by year. Graduates have taught or are teaching in every state in the Union, except three, and in Canada and Porto Rico. There is an increasing demand for dietitians, lunchroom managers, institutional and social workers.

The number of schools in which industrial arts and household arts are being taught is rapidly increasing and the demand for well-trained teachers of these subjects is greater than ever before.

The officers of the Institute are glad to recommend teachers to school officials who are seeking competent teachers or directors of vocational schools, of manual training, industrial arts, and household arts. In making recommendations every effort is made to name candidates who by training, temperament, personality, and experience are adapted to the demands of the position to be filled. The more complete and definite the information furnished as to the kind and amount of work required, and the salary to be paid, the better they are prepared to select the person most likely to give satisfactory service. They prefer to make no recommendation unless they feel confident that they can name a candidate who will succeed.

While the officers of the Institute never guarantee positions to students upon graduation, they do everything in their power to assist graduates to positions they are qualified to fill.

SCHOOL YEAR

The school year is thirty-six weeks in length, beginning September 13, 1920, and ending June 3, 1921. Students should arrange to enter at the beginning of the school year if possible. When this is not possible students may enter at the beginning of the second semester.

The summer session is five weeks in length, beginning July 26, 1920, and ending August 27, 1920.

Address all correspondence regarding courses of study or general work of the institute to

L. D. HARVEY,
President.

The Stout Institute,
Menomonie, Wisconsin.

COURSES OF STUDY, 1920–1921

INDUSTRIAL ARTS DEPARTMENT

Two and Four Year Courses

The hours indicated are semester hours required.

One hour of recitation or two hours of shop or laboratory work with such outside preparation as may be necessary, once a week for eighteen weeks constitutes a semester hour.

First Year.

	Hrs.
Shop Work and Drawing	20
Psychology I	5
English Composition	5
English, Directed Readings	1
American History	5
Gymnastics	R
	36

Second Year.

	Hrs.
Shop Work and Mech. Drawing	20
Organization of Industrial Arts	2
Teaching Industrial Arts	3
Observation and Prac. Teaching	4
English, Directed Readings	2
Public Speaking	2
Hygiene and Sanitation	1
Citizenship	2
Gymnastics	R
	36

The twenty hours of shop-work in the first year will be in three or more of the following subjects, to be determined by the director.

Elementary Woodwork	Mechanical Drawing	Machine Shop
Carpentry	Electrical Work	Printing
Forging	Wood Turning	

The twenty hours shop-work in the second year will be in three or more of the following subjects, to be determined by the director.

Mill Work	Auto Mechanics	Machine Drawing
Wood Finishing	Metal Finishing	Sheet Metal Work
Cabinetmaking	Patternmaking	Architectural Drawing
Masonry	Foundry Work	

Third Year.

	Hrs.
Shop Work, Drawing and Design	10
Psychology II	2
Vocational Education	2
English	3
Modern History	3
Modern Industries	2
Mathematics	4
Sociology	3
Physics	5
	34

Fourth Year.

	Hrs.
Shop Work and Drawing	10
Administrative Problems	2
Strength of Materials	3
Industrial Chemistry	4
Economics	5
English	2
Industrial History	3
Principles of Education	3
Thesis	2
	34

The ten hours required shop-work and drawing in the third year, and in the fourth year will be specialization in the shop-work taken in the first and second years or new work.

In the fourth year five hours of additional shop-work may be substituted for the same number of hours of other work, when approved by the director.

HOUSEHOLD ARTS DEPARTMENT

Four Year Course

First Year.

	Hrs.
General Chemistry	5
Food Chemistry	4
Food Study	2
Psychology I	5
English Composition	5
Drawing and Design	3
Sewing and Textiles	4
Cookery I, II	5
Hygiene	2
Home Nursing	1
	36

Architectural Drawing

Second Year.

	Hrs.
Microbiology	4
Dietetics I	4
Household Management	3
Home and Social Economics I.	3
Interior Decoration	3
Dressmaking I, II	4
Cookery III, IV	4
Organization of Home Economics Courses	2
Practice Teaching	4
English Directed Readings	2
Laundering	1
Methods of Household Arts	2
	36

Third Year.

Textile Major.		Required.		Food Major.	
		English Literature	3		
		Psychology II	2		
Millinery	2	Modern History	3	Experimental Cookery	3
Chemistry of Textiles	3	Household Physics	3	Food Analysis	3
Applied Design	2	Public Speaking or Citizenship	2		6
	7	Home and Social Economics II	4		
		Qualitative Analysis	3		
			20		

Fourth Year.

Textile Major.		Required.		Food Major.	
		English Readings	2		
		Principles of Education	3		
		Community Hygiene	4	Chemistry of Nutrition	4
Costume Design	3	Current History	5	Dietetics II	4
Ad. Dressmaking and Drafting	4	Principles of Teaching	2		8
	7	Thesis	2		
			18		

In addition to the required subjects, students, in the third and fourth years, are expected to elect from the following list sufficient work to complete 32 credits for each year.

Students taking the food major may elect from the textile major.
Students taking the textile major may elect from the food major.

Home and Social Economics III ... 4	Industrial History.. 3	Architectural Drawing 2½
Institutional Management 3	Child Psychology... 2	Administrative Problems 2
	Sociology 3	Economics 5
	Mechanical Drawing 3	Vocational Education 2

DEGREES

The degree of Bachelor of Science in Industrial Arts is conferred upon students completing the Industrial Arts course and the degree of Bachelor of Science in Household Arts upon students completing the Household Arts course.

ADVANCE CREDIT

Advance credit will be given for equivalent work done in colleges of recognized standing. The question of equivalency will be determined by the Faculty Committee on advance credit.

Students seeking credit for work done in other institutions, must present evidence of honorable dismissal from such institutions, and a certified record from the institution showing the number of semester hours work in each subject, together with a copy of the catalog of the institution showing the courses taken.

TWO YEAR COURSE

The work required in the first and second years constitutes the two-year course. Upon its completion a diploma is given, which entitles the holder to a state license to teach either the industrial arts or the household arts in the public schools of the state for two years. Upon the presentation of evidence of two years' successful teaching, a life State certificate is issued by the State Board of Examiners.

OUTLINES OF COURSES

COURSES IN EDUCATION

PSYCHOLOGY I

Fundamental principles of psychology and their application to the problems of the class room constitute the work of this course. The psychology of attention, habit and will are the phases which receive special attention. Principles, both of psychology and pedagogy, are studied and discussed in terms of definite application to concrete teaching problems. Credits: 5

PSYCHOLOGY II

This is an advanced course in educational psychology. The more important of the topics considered in Psychology I are again taken up and a broader treatment given. The subject is considered not only from the standpoint of the education of the teacher for teaching but from that of the education of the individual as a member of society. Credits: 2

CHILD PSYCHOLOGY

In this course the mental life of a young child, as distinguished from the mental life of a youth or of an adult is taken up. Among the subjects to be discussed are: sensation as a basis for consciousness; characteristics of children's imagination; proper mental food for children, and how the character of this food must change with each stage of development; children's ethics. Credits: 2

ORGANIZATION OF INDUSTRIAL ARTS COURSES

Problems of organization of courses and shops include the formulation of purposes, arrangement of courses and plans for school shops. An analysis of subject matter arranged by grades begins with elementary hand work and covers junior and senior high school shop work, mechanical and free hand drawing, and special attention to vocational courses. Study is made of equipment and maintenance of industrial arts and vocational departments, considering: kinds, quantity, and cost of tools, benches, cabinet work, and miscellaneous supplies. The selection and installation of equipment for various lines of school work is also made a feature of this course. Special attention is given to matters of arrangement of shops, the planning of equipments, lighting, storage of supplies, and consideration of economy in the purchase of a school outfit. A study is made of details of business administration and general management of the affairs of an industrial arts department in a public school system. Credits: 2

TEACHING THE INDUSTRIAL ARTS

The purpose of this course is to bring about a definite realization of the principles of teaching and their application to industrial arts and vocational subjects. The effective organization of subject matter for daily class or shop teaching and the methods of presentation are the phases on which stress is placed. Attention is also called to shop and class management as a factor in efficient instruction.

The scope of the course is as follows: first, a clear, concise statement of the problem of teaching in which the function of the school and the teacher is shown; second, the factors that enter into the teaching process and which must be taken into account by the teacher; third, the fundamental laws of teaching and their application to the industrial arts problem; fourth, types of lessons and suggestions offered by each to the industrial arts teacher; fifth, class room and shop methods including the organization of subject matter for instructional purposes and the assignment and distribution of students and work during the class period; sixth, standards for testing results of class room or shop procedure covering systems of grading and the determination of the worth of subject matter and method. Credits: 3

PRINCIPLES OF TEACHING

The purpose of this course is to give students a better understanding of the fundamental principles involved in method, and to make the application of these, as well as of the more general principles of educational aims and values, to the field of Home Economics teaching. Types of lessons are studied and analyzed, and the class room discussions are prolific in concrete illustrations which meet the needs of the teacher of Home Economics subjects. Observation of class room work is followed by reports, and opportunity for experimental teaching.

Prerequisites: Organization and Management of Household Arts Courses, Psychology II, Principles of Education. Credits: 2

OBSERVATION AND PRACTICE TEACHING

As a requirement for graduation from the Industrial Arts Department, every student must have at least eighteen weeks of practice teaching. Proof of successful teaching experience may at the discretion of the head of the department reduce this requirement. The practice teaching schedule is arranged in periods of nine weeks' duration, thus permitting students to gain experience in two or more different lines of work if it is so desired. All practice work is in connection with the public school system and the local vocational school and covers a wide range of work. The teaching is done under the direct supervision of the special teacher of the subject in which the instruction is given. Before taking charge of any class the student teacher must prepare and submit for criticism a lesson plan indicating the proper order of procedure for each day's work.

Before beginning practice teaching and as a preparation for it, the student systematically observes the work of experienced teachers. Every teacher in the Institute bears in mind that it is his work to train his students to teach, as well as for him to do good teaching. In doing

this, he calls attention to his mode of presentation of subject matter; to the pedagogical principles he applies in his class work, and to the manner in which the application is made; and to what modifications in methods of applying these principles must be made to adapt the instruction to the capabilities of less mature students. The student, as he comes in contact with different teachers, and in his class work in different subjects, is thus consciously observing the work of skilled teachers and studying the art of teaching, through the concrete application of important pedagogical principles in the teaching of a wide range of subjects.

As a requirement for graduation from the Household Arts Department, every student must have from twelve to eighteen weeks of practice teaching including both food and clothing work. The teaching is preceded by a series of observation lessons which form the basis for discussion in the observation class.

The teaching is done in the Menomonie public, parochial and vocational schools and ranges from fifth grade sewing to fourth year high school dietetics and household management.

The work in this department is planned, directed, and supervised by two supervisors of practice teaching. Detailed lesson plans are required for each lesson taught and these must be approved by the supervisor before the lesson is given. Personal consultations and conferences between the student teacher and the supervisors after each lesson, strengthen the work and give direction and guidance when it is most needed. This work is open to students classified as Sophomores.

Credits: 4

VOCATIONAL EDUCATION

The emphasis in this course is placed upon the growth and development of industrial education, studies of specific types of schools, their purpose and organization, State and Federal legislation, and the vocational guidance movement. Lectures, assigned readings, individual reports and assignments are utilized to these ends. The outline of the work covered is as follows: (1) History and development of the industrial education movement in the United States, including the influence of European systems, causes for its rapid growth in the United States, defining of terms growing out of the development, and analyses of the various purposes of the different movements. (2) Study of specific types of schools, their purposes and organization, including the trade, continuation, apprentice, prevocational, vocational, and part time schools and the technical and junior high schools; the industrial teacher and his training. (3) The vocational guidance movement, including its development, the place of vocational and individual analyses, the vocational counselor, placement work, and methods of organizing guidance work for a school system. (4) Recent progress in industrial education covering the survey as a factor, studies of selected surveys, state and national legislation, and the present trend of the entire movement. (5) General sources of information pertaining to the subject. Credits: 2

PRINCIPLES OF EDUCATION

The aim of the course is to concentrate upon the fundamental factors and tendencies of modern education. To this end the work centers around the biological bases of education, the various aims of education, the special values of education, the educational values of the various groups in the curriculum such as the humanities, the natural sciences and the vocational subjects, the organized and unorganized educational agencies, their contact with the individual and the manner in which he is most helpfully affected by them; the necessity for applying fundamental psychological principles in the work of organized educational agencies, in order to develop right habits of thought and action, and such an attitude of mind as will make the influence of the unorganized educational agencies most effective in the education of the individual.

Credits: 3

ADMINISTRATIVE PROBLEMS

This course includes a survey of several problems of educational administration of interest and value to the specialists in vocational education and in the practical arts. The following topics represent the type of work covered: Systems of organization in public schools and in higher institutions, adaptation of modern efficiency studies to such schools, the school budget and financial administration, school officials and their supervisory duties, training teachers in service, planning and management of the school plant, publicity and promotion work, consideration of student needs and interests. Credits: 2

ORGANIZATION OF COURSES IN HOME ECONOMICS

The topics considered in this, a professional course, are: the aims and purposes of Home Economics work in the schools; place in the curriculum; relation to various schemes of school organization, such as elementary, junior and senior high, rural, and part time schools; courses of study in different types of schools, based on the aims of the school and the needs of the girl; equipment—its selection, purchase, cost and care; cost of maintenance of department; business management. Methods of teaching are studied with reference to the preparation for the lesson, preparation of materials and equipment, presentation of lessons, class and laboratory management. The special teacher is considered from the point of view of her training, personality, relations with other teachers and with other people in the community, attitude toward principals and superintendent. The work consists of lectures and class discussions. This course is not open to students classified as freshmen.

Credits: 2

COURSES IN ECONOMICS AND SOCIOLOGY

ECONOMICS

The aim of this course is not to cover the entire field of economics, but to acquaint the student with its basic principles in order that he may have a more intelligent understanding of the actual applications of economics to industrial conditions. Emphasis is given this phase of the work. Text books are used and ample reference material is at hand to give the student a broad view of the subject. The more important topics taken up are: the plan of economics in the social sciences; the nature and scope of economics; characteristics of the present economic system; evolution of economic society; consumption; production; value and price; monopoly; money; money and banking: distribution; industrial organization; wages; labor problems; legislation in regard to industrial conditions; relation of the state to industry; modern economic progress. Credits: 5

MODERN INDUSTRIES

This work aims to acquaint the students with the fundamental facts concerning the organization and methods of production employed in typical industries of the present time. The course is developed around the following: metal industries; lumbering and allied industries; papermaking and printing industries; food and kindred industries; textile and allied industries. The special subjects under each group are: Sources and classification of raw materials; transportation of raw materials; transformation or manufacture of raw materials; the economics of the industry and the problems of distribution of finished products.

Credits: 2

SOCIOLOGY

The aim of this course is to secure such knowledge of sociological principles as will enable the student to study intelligently the present conditions in society falling under these principles. This will involve the study of the conditions under which society has developed and how these conditions have been modified in the past and may be still further modified in the future for the betterment of the individual in society.

Credits: 3

CITIZENSHIP

The aim of this course is to develop a knowledge of what is essential for high quality American citizenship. It will consider not only the privileges and opportunities resulting from citizenship but will take into account and emphasize the reciprocal duties and obligations involved in citizenship. As ours is a government by the people, the individual's responsibility in this government will be studied with care. As ours is a government of the people and for the people, the rights of the people under that government will also be considered. Local government is stressed, but it is not forgotten that our national government is still active and operating. Credits: 2

HOME AND SOCIAL ECONOMICS

The following courses aim to interpret to students their opportunities and responsibilities as modern women. They supply a certain historic background together with necessary current data, and deal with personal and social problems.

I—THE FAMILY

The object of this course is the development, through reading and discussion, of practical ideals of living as especially related to the family group. With this end in view the family is studied in its primitive forms and traced through history up to modern times. The modern family is studied sympathetically, and at the same time subjected to a critical analysis, including the consideration of such subjects as divorce, desertion, and the social evil. Current social movements making for the betterment of these conditions are considered, such as those resulting in appropriate legislation, the establishment of special courts, education for home-making, and the development and popularization of adequate ideals. Credits: 3

II—WOMAN IN INDUSTRY

As contrasted with the course on the Family, dealing essentially with woman in the home, this course takes for its subject woman as a worker in the outside world. It concerns itself throughout, however, with the correlation of her problems; that is, it bears in mind the personal and human factor in its study of the occupational field. The material is largely drawn from surveys of the trades, which are studied in detail, after a brief preliminary study of the historic background. Industrial organization as expressed in trust, monopoly and trade union is also briefly studied. An analysis of wrong conditions is followed by a study of such agencies of betterment as the Consumers' League, social and philanthropic work, and vocational education. The effect of the world war on industry and especially woman's work concludes the course. Credits: 4

III—THE CHILD

It is the aim of this course to make an interpretive study of the child rather from the standpoint of the mother and society than of the teacher. A social survey of the status of the child is made, together with a study of current movements for child-betterment, including such topics as the Children's Bureau, juvenile courts and playgrounds, child labor legislation, and correlated topics. The function of the mother is especially studied, as educator and companion, as well as physical care-taker. Suggestions as to books for children supplement the course.

Prerequisite: Psychology 1 Credits: 4

IV—THE WOMAN CITIZEN

It is the aim of this course to equip the woman citizen with a working knowledge of Federal, state and local governments and to interpret her relations to society as a voter. The course will open with a short review of the woman suffrage movement in the United States, including a brief survey of woman's current status, political and legal. Government will be studied not only as a system, but in active operation, conditioned continually by party politics and by its personnel. Emphasis will be thrown particularly on problems and ideals and the significance of women as a new social force. Excellent modern books along these lines have been secured for students. Credits: 4

COURSES IN SCIENCE AND MATHEMATICS

MATHEMATICS

Such portions of arithmetic, algebra, geometry and trigonometry as are useful to the teacher of industrial arts are studied and their application in industrial operations taught. Credits: 4

APPLIED PHYSICS

The aim of this course in applied physics is to make practical application of the principles of physics to industrial lines of work. These principles are demonstrated and worked out through laboratory work and the use of commercial apparatus and machinery in actual operation. Credits: 5

HOUSEHOLD PHYSICS

The purpose of this course is to teach the principles of physics applicable in the use and care of the equipment of homes, schools, and institutions, with particular reference to the sanitary aspects. The course will deal with water supply, plumbing, sewers, heating, ventilation, refrigeration, gas supply, stoves, lamps, electric lighting, cooking and heating, telephone, elevators and dumbwaiters, machinery for dishwashing, laundry and cleaning, fire extinguishers and general repairs.

Fee: $3.00 Credits: 3

INDUSTRIAL CHEMISTRY

This course treats the subject from the practical standpoint and through lectures, demonstrations, and laboratory work endeavors to present scientific information pertaining to the common industrial materials. Following a brief study of the fundamentals of chemistry, a study is made of the composition and characteristics of the various irons and steels, the corrosion and oxidation of metals; the composition and setting reactions of mortar and cement, changes in cement and concrete due to heat and other causes; chemistry of paints, oils, stains, and varnishes; tests of lubricating oils and compounds, treatment and preservation of rubber and leather belting; composition of various kinds of glue; the chemistry of the storage battery, and the composition, decay and preservation of wood. Credits: 4

MATERIALS OF CONSTRUCTION

The work in this course is organized around the materials of the machine and building trades. Standard and special tests are carried out with the following materials: various grades of iron and steel; building materials such as cement, concrete, stone, and brick; woods of various kinds; types of construction involving wood and metal; holding power of glue, screws, nails, and other fasteners; foundry materials such as molding and core sands and binders; rubber, leather, and cotton belting. Credits: 3

GENERAL CHEMISTRY

In this course it is proposed to teach the chemical viewpoint of matter, to give definite meaning to necessary technical terms, and to teach accuracy in scientific work. The course includes the fundamental theories and laws concerned in chemical reactions; the study of the non-metallic elements; the properties of a few metals, especially those whose compounds are in common use, and those which are used as utensils for the household; and the application of chemical principles to the field of household arts. Laboratory experiments supplement the recitation work. McPherson and Henderson's "Course in General Chemistry" is used as a text. The laboratory manual has been compiled to emphasize the above features. A course in high school chemistry is very desirable.

Fee: $6.00 Credits: 5

FOOD CHEMISTRY

The purpose of this course is to give the fundamental chemical knowledge necessary for an understanding of household processes involved in cleaning and in cookery; the chemical composition of foods. The work consists of recitation and laboratory work. A brief outline of the course includes: hydrocarbons, as related to fuels and dry cleaning; alcohols, especially the one involved in breadmaking; acids, as related to the study of fats, vinegar, fruits, and vegetables; esters, as used for flavorings; fats, carbohydrates, and proteins, as to occurrence, composition, and reactions; disinfectants; preservatives; patent medicines. Emphasis is constantly placed on the practical and professional side of the study. The points brought out in class discussions have applications to high school cookery, food study, and chemistry, as well as to household management, physiology, and home nursing.

Prerequisites are courses in General Chemistry, and Cookery I.

Fee: $6.00 Credits: 4

QUALITATIVE CHEMICAL ANALYSIS

The aim of this course is to give the student the power of determining, in a qualitative way, the constituents in any ordinary material that might come into the home, school, or laboratory. The course is chiefly laboratory work with some recitations and lecture work to emphasize and drill on particular points. Emphasis is placed on technique and a thorough understanding of the chemical principles involved in chemical analysis. A brief outline of the course includes: qualitative analysis of the groups of metals; unknown from the groups of metals; qualitative analysis of the organic materials found in foods or their preparation; qualitative analysis of a few textiles; urinalysis, the examination of some unknown food material for its respective constituents.

Prerequisites: General Chemistry and Food Chemistry.

Fee: $7.50 Credits: 3

FOOD ANALYSIS

This is a course in quantitative organic analysis with special reference to teaching standard volumetric and gravimetric methods used in

the ordinary examination of types of food products. Included in the analysis are milk, cream, syrups, oils, fats, and cereals.

Prerequisites: Qualitative Analysis.

Fee: $7.50 Credits: 3

CHEMISTRY OF NUTRITION

This course will present the essential chemical facts pertaining to life processes. The composition and nutrition of the physical units or organization, i. e., cells will be studied in connection with processes of maintenance, repair, and growth in plants and animals. The laboratory work will include experiments and demonstrations on fermentation; respiration; salivary, gastric, pancreatic, and intestinal digestion; absorption; tissue composition and function; excretion.

Prerequisites: General and Food Chemistry; Microbiology.

Fee: $6.00 Credits: 4

MICROBIOLOGY

The subject matter of this course deals with the influence of such micro-organisms as bacteria, yeasts and molds upon home and every-day life. The bacteriological problems of personal and public hygiene and sanitation are considered in both laboratory and class room, and are closely related to the work in the Household Arts. The course is prefaced by a brief review of the principles governing plant physiology, modified to serve the needs of students as a preparation for their study of micro-organisms which affect the home. In this introductory course, such topics are considered as: the general nature of organisms, composition of protoplasm, structure of a living cell, the processes of respiration, digestion, growth, reproduction, and sex hygiene instruction. Throughout the physiology of micro-organisms is compared with that of ordinary plant life. The common household molds are then discussed as to morphology, growth, reproduction, use, and control; work on the yeasts follows, and attention is directed to the general nature of the yeast plant, conditions favorable for its growth and reproduction, the utility of yeasts, history of bread making, commercial varieties of yeasts, and a comparison of their value. Bacteria are next studied and their structure, mode of development and reproduction are discussed. The useful and harmful effects of bacteria are considered and emphasis is placed upon the influence of these organisms in relation to food preservation, the nitrogen cycle, the arts and industries, water and milk supplies, immunity and disease.

Prerequisites. Physiology and Hygiene, Food Chemistry.

Fee: $5.00 Credits: 4

TEXTILE CHEMISTRY

The course includes the identification by means of the microscope, of fibres and substitute material; the chemical examination of fibres, including tests to determine content of cloth, and adulteration; the classification and application of dyes; home problems in dyeing; the quantitative determination of adulterants; the removal of stains; and the proper use of materials in relation to cleansing and laundering.

Lecture work accompanies the reference work assigned for study, and gives basis for the laboratory experiments.

Fee: $7.50 Credits: 3

COURSES IN SANITATION AND HEALTH

HYGIENE AND SANITATION

This course treats the subject from the standpoints of personal hygiene and sanitation, and school and shop hygiene and sanitation. The topics developed include the health of adolescents, nervous disorders and their prevention, diet, narcotics, fatigue, posture, care of eyes and personal hygiene, proper care and ventilation of school rooms, infectious diseases and their symptoms, disinfectants, first aid treatment, industrial hygiene.

Credit: 1

PHYSIOLOGY AND HYGIENE

This course is planned for the purpose of teaching. (a) The structure and function of the body, organs, and tissues; (b) personal hygiene and individual health; (c) public hygiene and general health; (d) physiology and hygiene in relation to the school child. A text book is used, supplemented by reference work. The subject of sex physiology and hygiene is given in a series of lectures by the instructor. Organization and presentation of subject matter and vital present-day school problems of hygiene are discussed.

Credits: 2

HOME NURSING

The course in home nursing aims to give a practical knowledge for the general care of cases of illness in the home which do not demand professional nursing skill, and of accidents and emergencies which may occur in the home, school room, or elsewhere. Theory is supplemented by practical work wherever possible. Work is given in the choosing of a series of lessons suitable for various classes of pupils such as public school classes and continuation school classes. A text book is used, supplemented by reference work.

Credit: 1

COMMUNITY HYGIENE

This course deals with problems concerning the conservation and promotion of the health of a community. It includes such hygienic work as study of a pure water supply, sewage disposal, milk and food inspection, control of infectious disease, health organizations, child welfare movements, industrial hygiene, war sanitation, village improvement associations, and health exhibits. Opportunity is given for laboratory training necessary to qualify students to make tests to detect the germs of tuberculosis, diphtheria or typhoid in suspected material, as performed by public health laboratories. The health conditions of different local food supplies are investigated and graded. Fumigation and the action of disinfectants on disease organisms are carefully studied in classroom and laboratory. Training is given to enable the student to assist in promoting public health movements by her knowledge and co-operation in

every locality where her work may fall, either directly in health laboratories or indirectly through education.

Prerequisite: Microbiology.

Fee: $5.00

Credits: 4

PHYSICAL TRAINING

The work in gymnasium is given first, for corrective purposes, and second, to enable the students to direct and conduct this work in high school. Many calls come for the special teacher to combine with gymnasium and athletic work. The students are given a wide range of work on the floor in marching, use of Indian clubs and wand, in drills, games, work on the bars, ladders, horses, rings, and mats. Required without credit.

COURSES IN HISTORY

AMERICAN HISTORY

The purpose of this course is to give the student a familiarity with American history in order that he may understand why American social, political and economic life is what it is. This is not a course in industrial history, but industrial and economic conditions are emphasized as necessary to the carrying out of the purpose of the course. Special study is given the European background of American history, past and present; the geographical background of American history; the growth of democracy through the agency of free land; territorial expansion of the United States; labor problems, the tariff, and conservation of all natural resources.

The last twenty-five recitations are given to the study of American history since 1907. The course is offered both the first and second semesters. Credits: 5

MODERN HISTORY

This course is aimed to give the student sufficient understanding of the most important events during the past hundred years in order that he may better understand the changes that are taking place in Europe today. The work is so arranged that some time is given to a study of present day conditions in Europe. The following topics are studied: the reconstruction of Europe at the Congress of Vienna; Europe after the Congress of Vienna; political changes in various European countries between 1815–1848; the unification of Italy and Germany; the German Empire; France under the Third Republic; the political and social changes taking place in England during the nineteenth century; the extension of the British Empire; Russia in the nineteenth century; Turkey and the Eastern question; expansion of Europe in the nineteenth century; the world war and its causes. A text is used. Credits: 3

INDUSTRIAL HISTORY

This is a course in American history with especial emphasis laid upon the industrial development and is in no way a duplication of any other work being offered. The first part of the course takes up the growth and development of our present industrial system, and is followed by an intensive study of the present day situation. The topics studied are: the industrial development under British control; industrial aspects of the Revolution; National beginnings of industry; industrial consequences of the war of 1812; the epoch of expansion; internal improvements and effect upon the industrial development of the country; economic causes and results of the Civil War; the protective policy; expansion of commerce; the development of a strong financial system; governmental control of public utilities; the organization of labor; relation of the government to industry. A text book is used and ample reference material is provided. Credits: 3

CURRENT HISTORY

This course is organized to give the students an understanding and appreciation of present day social, political, and economic questions. Students taking this course should have an understanding of modern American and European conditions. The international relations of the United States are studied as well as the domestic questions. The topics vary from year to year depending on the questions of the times. This year a study will be made of the development of party history, the party platforms, the work at the Chicago and San Francisco Conventions, the recent amendments to the Constitution, the Covenant of the League of Nations, the treating making power of the Senate, the colonies of the United States and their government, the Irish question, the labor problems, the re-making of the map of Europe and similar topics

Credits: 5

COURSES IN ENGLISH

COMPOSITION

Presentation of such phases of composition work as will give the student a command, both in speaking and writing, of simple, correct and clean-cut English, is the aim of this course. The special topics considered vary with the needs of particular classes. In general these topics may be designated as grammatical forms; sentence structure; choice of words; social and business correspondence; the preparation and organization of literary material. The work is closely correlated with that in other departments and is based on long and short themes, talks, discussions, and papers, presented by members of the classes. Credits: 5

LITERATURE

The purpose of this course is to gain an understanding of the essay, of the poem, of biography, and of fiction as forms of literature. A study outline is followed for each classification. A further aim is to read extensively from a list of standard American and English writers of these different forms of literature. Individual interpretations are given through readings and critical reports.

Prerequisite: English Composition Credits: 3

ENGLISH, DIRECTED READINGS

This work is given for the purpose of developing an interest and taste in the reading of good literature of various kinds.

The student's present interests will be made the basis of selection in beginning this course. It will be the teacher's aim to broaden and direct these interests and to aid the student in selecting reading material from list of books selected to serve a wide range of interests. The class work will aim to develop facility and accuracy of expression through oral and written reports of the reading done during the week.

Credits: 1 each semester.

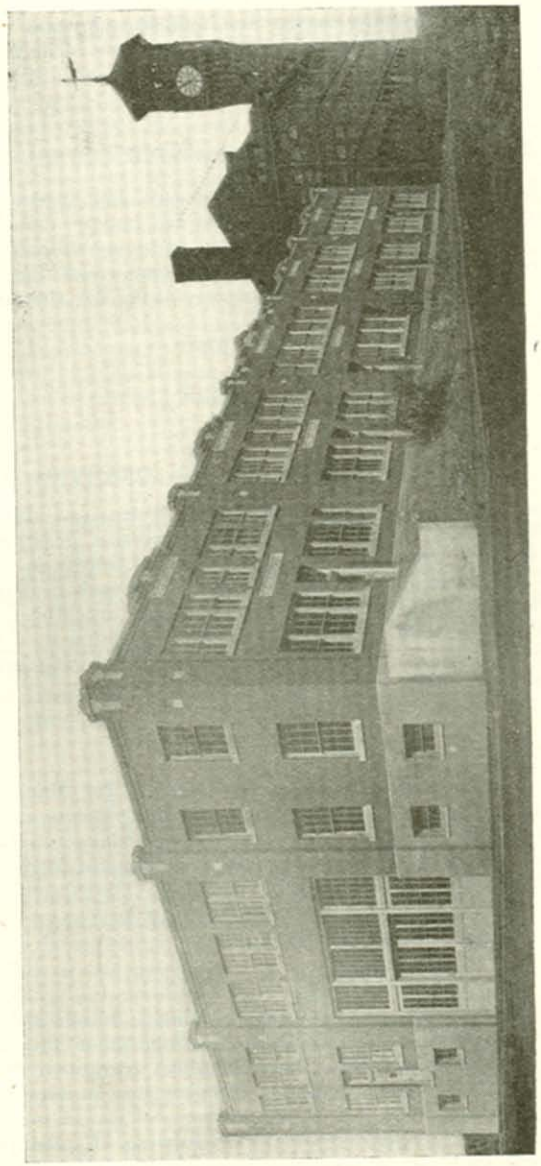
PUBLIC SPEAKING

The aim of this course is to present the requirements for easy and effective public speaking and to master these requirements through practice and training before both small and large groups. Drills in enunciation, pronunciation and on memory selections are given. Original productions are emphasized. Criticisms based on habits of the body and vocalization are made important. Suggested subjects are listed. Organization of these subjects in outline form is taught and practice given in oral presentation.

Prerequisite. English Composition Credits: 2

THESIS WORK

As a requirement for graduation every student in both the Industrial and Household Arts Departments must submit a thesis. This represents original work and is selected by consultation with the heads of each department. Credits: 2



BUILDING TRADES BUILDING

COURSES IN SHOP WORK AND DRAWING

The shopwork and drawing in the first and second years will include six or more subjects, to be determined by the director. The work offered in the third and fourth years will be specialization in the shopwork taken in the first and second years or new work.

CREDITS FOR SHOP AND DRAWING COURSES

Each course here listed requires at least two and one-half semester hours of work and two and one-half credits are granted for completion. Most of the courses have an additional two and one-half semester hours of work open for those who desire it. In some cases five additional semester hours are possible. Full credit is granted for the full number of semester hours taken.

DRAWING

ELEMENTS OF MECHANICAL DRAWING

This course is composed of 21 drawings and tracings starting with elementary line work, geometric drawings, projection drawing and developments, working drawings, including isometric drawings. A reasonable amount of time is given for the completion of each drawing. Good drawing technic is required before drawings are accepted. More advanced work may be had by students capable of doing it.

Organizing of courses in elementary mechanical drawing suitable for high school work is taken up.

MACHINE DRAFTING

Elements of mechanical drawing is prerequisite for Machine Drafting I. Accurate, free-hand sketches are made for castings and working drawings are made. Detailing and assembly drawings are also made. Isometric sketches are made from working drawings for tests in reading drawings. Text: French, Engineering Drawing. Gears and cranes are taken up on the completion of Machine Drafting I.

ARCHITECTURAL DRAFTING

In the first nine weeks, Architectural Drafting I, details are taken up of the various parts of a building and drawings made including windows, cornices, stair details, etc. A set of plans are drawn for a small residence, either frame, brick or stucco, keeping to a certain floor area, and cost. Details are made and a perspective.

In the second nine weeks, Architectural Drawing II, planning a fireproof apartment building or residence is covered to cost $15,000 along colonial lines:—making ¾″ scale details, and perspective. Pen and ink rendering and color work are given to those who are capable of handling this work. Writing specifications and estimating. Reference reading is required during this course. Modern drafting methods are used.

WOODWORK AND BUILDING TRADES

ELEMENTS OF BENCH WOODWORK

This work is for the distinct purpose of acquainting the students with the correct use and care of the fundamental bench woodworking tools and with the various materials used. Two text books are used supplemented by reference books, catalogs and magazines.

The following outline is suggestive of the work of the course: (a) Saw filing—three exercises are given in the study, laying out and cutting of the teeth. These are followed by the complete fitting of rip and cross cut saws—one or more of each. (b) Grinding and sharpening of chisels, plane bits, spoke shaves, and auger bits. (c) Planes, chisels and saws studied and used in the making of several exercises and projects which have been designed or selected with especial reference to the variety of typical uses to which each tool may be put. (d) Other common woodworking tools used and studied. (e) Typical joints and constructions are made and tested. (f) Lumber, glue and other materials used and examined.

GRADE AND PREVOCATIONAL WOODWORK

This course includes such tool processes and construction work as may be given to public school classes in the fifth, sixth, seventh, eighth and ninth grades. A course of projects and exercises suitable for these grades is made. In connection with the working out of these problems the students make a thorough study of methods of teaching, courses of study, and equipments necessary or desirable. Students also begin to solve some of the problems of teaching by preparing and presenting lessons or demonstrating tool processes as they would be given to a public school class.

WOOD TURNING

Wood turning is given to teachers of Junior and Senior high school classes and vocational classes. Problems designed for development of skill and the acquiring of fundamental operations such as are essential in turning, are likewise given. Exercises such as cylinders, concave, convex, and combination curves are turned in soft wood, followed by applications in hardwood, such as: file handle, vise handle, oval hammer-handle, mallets, and gavels.

A second group involving face plate work is given, consisting of: rosette, towel rings, picture frames, trays, bowls, goblets, candle sticks, lamp stands, etc. Students are introduced to power machinery and get instruction as to care of lathe and tools. Discussions cover the selection of equipment, planning of courses in wood turning, and methods of teaching the subject.

CABINETMAKING

Case construction or cabinet making may cover a large range of variable methods of making a cabinet, and as it takes from three to four years to enable one to work as a practical cabinetmaker, it is quite a

problem to cover portions really worth while for so short a time as can be devoted to it in school work. With this in mind, a small case is planned to cover, as varied a range as seems possible for the time available, or equipment may be built for the institution. This necessitates previous wood working experience, as the work is rather advanced and time does not permit elementary features being covered.

The practical work consists of:—Making a mill bill from complete, detailed blue prints of the project undertaken, figuring lumber bill and selecting material that will cut to good advantage; ripping, planing, cutting to lengths and jointing of stock by power driven machinery; face marking and laying out stock, followed by mortising, tenoning, grooving, relishing, gaining, beveling, tapering and rabbeting. All the work possible is done as in commercial practice. Then follows bench work and assembling, fitting of sections together, making veneered panels, gluing and clamping of tops and joints, smoothing in various ways and at proper time, fitting together and assembling of sections, fastening of tops, fitting drawers and doors, hanging doors, fitting hardware, and the final smoothing and cleaning up of project to prepare for staining and varnishing.

The informational side of the work is covered by talks, demonstrations, illustrations, and individual help; first, that which has a direct bearing on the work to be done, as above described, and as much additional related information as time permits, drying and care of lumber, care of saws and their fitting, proportioning the size of tenons, advice as to precautions against accidents when working around machines, different ways of doing the work, trade terms, and order in which to give dimensions.

MILL WORK

This course is provided for the purpose of instruction and practice in the care and use of woodworking mill tools and machinery, and especially in methods of precaution against accidents in operating. The work is offered principally to prepare vocational teachers for their personal use of such machinery, in schools where they are expected to be entrusted with the care and operation of woodworking machines. A large mill equipment furnishes an opportunity to do one or several of the following lines of work such as may be created by the needs of the institution. Work is begun with the cutting of stock for projects in other classes and at times followed by figuring out mill bills, cutting stock, laying out, mortising, tenoning, sticking or moulding, relishing, grooving, gaining, and rabbeting, as demanded in the making of such work as lockers or desks, tables, and work benches of various kinds, built-in cabinet work, interior finish, stair work, sash, doors, screens, and mouldings. Any of the above include only the mill end of the production by the use of power machinery, unless by request on the part of individuals who would like to do some of the assembling and bench work which follows milling. In addition to this is offered such work as is required in the upkeep and care of tools and machinery, namely: jointing, gumming, swaging, setting, filing of saws; keeping jointer knives and other edge tools sharpened; belt lacing. The informational side is covered by talks demonstrations, individual instructions and corrections that have a direct bearing on the work being done.

WOOD FINISHING

The work offered in wood finishing covers in part the making of a series of panels of different widths. The surfaces are planed, scraped, sand-papered, stained, filled, and polished, showing the method and value of different types of finish as pieces of regular sequenced work. In addition to this, students are given practical work in painting, interior finishing, and the finishing of furniture. Lectures are also given covering the following: Preparation of the wood; planing, scraping, and sanding; stains and staining; production and use of different stains; formulae for making water and spirit stains; fuming; fillers and their compositions and use, methods of filling hard and soft woods, open and close grained woods; wax, its character and preparations, different uses; rubbing with sand paper, with pumice stone; polishing, use of curled hair, use of steel wool; selection and care of materials; commercial practice in wood finishing; suggestions for handling wood finishing in school shops.

CARPENTRY

Work in this course is of a decidedly practical character and is intended to help fit the individual for vocational and trade school teaching as well as for the public school work. As framing is the first work done on a carpentry job, so it is usually the first to be introduced in school work. Full sized cottage construction, together with such exercise work as may be necessary for the development of sufficient skill, is given in this course. Emphasis is placed on the operations and constructions that are different from those found in bench woodwork and that are fundamental in frame building construction.

The work consists of floor framing including:—laying out, cutting, and setting sills, joists, bridging, headers, and trimmers, laying sub floor, squaring and leveling the floor frame; wall framing, cutting, and setting plates, studs, headers, trimmers, rib-band, and gable studs, plumbing and bracing walls, erecting scaffolding, and sheathing walls; roof framing, figuring span, run, rise, pitch, and rise per foot, laying out with steel square the lengths and cuts, and cutting and setting common, hip and valley, jack, and cripple rafters; laying out and framing dormers and openings, sheathing roof, setting cornice finish, shingling, setting window and door frames, setting outside base and corner trim, spacing cutting, and nailing siding; porch work. Workmanlike methods of application of processes are stressed.

The theoretical work given in connection with the tool processes and constructions includes a discussion of the braced and balloon types of frame, a comparison of various methods in framing floors, walls, and roofs, and a study of various types of roofs and cornices by means of blackboard drawings. Lectures and demonstrations are given on the use of the steel square in laying out and spacing joists and studs and in laying out the lengths and cuts of rafters. The kinds, grades, sizes, and prices of framing lumber are taken up and studied with regard to intelligent selection for particular purposes. Nails and builders' hardware are given consideration in the same way. Figuring and listing materials are given as outside work.

BRICKLAYING

Elementary bricklaying is planned to cover practical problems used in trade work suitable for vocational schools. Only practical problems are given in this course. Lectures are given out in mimeograph sheets together with drawings of all problems. Estimating job work and material is taken up. Demonstrations are given at various times, of laying brick under actual working conditions. Advanced work is available for those capable of undertaking it. This work may not be offered during 1920–21.

PATTERNMAKING

The patternmaking courses take up the technical details of the trade in a simple way. The student makes a number of exercises embracing the fundamentals so that he may be prepared to teach them to high school or continuation school students. The actual work consists of bench and machine woodwork and woodturning. Instruction and demonstrations cover the use of machine and hand tools, applications of patternmaking principles, methods of construction, methods of turning, and methods of finishing the exercises. Advanced or individual problems are assigned as soon as the student develops special ability. The work is limited only by the amount of time the student has available.

METAL TRADES

MACHINE SHOP

The beginning of the course is so arranged that each man will progress from one machine to another and will have done enough work on each to have an acquaintance with the scope and the typical processes of each. The exercises for the elementary work are selected to embody the fundamental principles incident to the machines. For the advanced work the exercises made are selected with the idea of being typical of certain processes; fortunately a large number of these are also of practical value. Small tools, as milling cutters, reamers, taps, gauges, forming tools, jigs, and templates are made. Also parts of steam engines, motors, and the machinery of the shop are made. In some cases the original exercises are designed and the tools necessary for the construction of the exercise by a class are designed and built.

FORGE WORK

Two courses in Forge Work are given. In the elementary course the student masters certain preliminary matters; such as building and carrying of fire, position at anvil, proper handling of tools and equipment. Each problem in the course is more or less dependent upon the preceding problem but offers new information and practice to the student. It is recognized that the ability to teach others these operations is equally as important as skill in the working of iron and steel. Outside reading relative to the history of the trade, manufacture of iron and steel, equipment, and forge fuels, is required. A limited amount of instruction is given in the working of tool steel, and spring steel.

The advanced course covers some of the more advanced problems in general blacksmithing, ornamental iron work, and a practical course in tool smithing, in which the forging, welding, hardening, and tempering of spring steel and tool steel is carefully covered. Considerable time is given to tool dressing and polishing. It is attempted to give a proper working knowledge of the trade necessary to enable the student to give workmanlike demonstrations accompanied by the proper explanation necessary for efficient teaching. From time to time students give sample demonstrations of problems. In the advanced course either an elementary course in forge work or practical trade experience is prerequisite.

FOUNDRY

The aim of this course is to train the student so that he will be able to handle the foundry work that is ordinarily given in a high or vocational school. The making of typical molds is taught, and because of its importance, cupola practice is given a large amount of time. Castings are poured in aluminum, brass, and iron. Core making and dry sand molds open up the field and show the possibilities of this work. A large assortment of patterns is available for use so that at no time need the work become monotonous. Castings of the exercises for use in the machine shop are made in large numbers, as well as castings for parts of machines and repairs. While molds of things of no practical value are often made, these molds are seldom poured. The theoretical work is covered by short talks at the start of each period, the subjects following as closely as possible the work being done.

GENERAL

PRINTING

The work in the first nine weeks, Printing I, acquaints the student with the fundamentals of the printing industry with the view of forming proper habits of work and securing an appreciation of the standards of printed product. The general outline of the course is based upon the proper sequence with which the commercial shop operates, starting with straight composition at the type cases, proofing, correcting, imposition, platen press work, and binding. The shop work is supplemented by lectures where a detailed study is made of ink, stock, stock problems, type faces, and approach to display problems.

The work in the second nine weeks, Printing II, is a continuation of Printing I and consists of more advanced problems in composition, imposition and press work. Much practical experience is gained by work on the Weekly Publication which involves ad composition, newspaper makeup and construction, and also the printing of many commercial forms. The lecture periods are devoted to typographical architecture, design, color theory and harmony, and cost calculations. The work in Printing I is prerequisite.

The third nine weeks, Printing III, is more extensively a shop course intended for specialization of students who are preparing to teach this subject. Many of the higher grades of printing processes are practiced during this course, such as three-color process work, and embossing,

while other modern methods are studied and observed. The lecture periods are devoted to the organization of vocational and public school courses, selection and costs of equipment, and a study of the general scope of the printing industry. The work in Printing I and II is prerequisite.

AUTO MECHANICS

The increasing demand for work in auto mechanics has made it necessary to double the shop capacity in order to take care of the work. A large amount of new equipment has been installed which makes it possible to give the students actual experience in every phase of the repair work. Some of the more important machines installed are: a running-in and burning-in machine, a re-boring machine, an 8 foot Cisco engine lathe, a 20″ back geared power drilling machine, a 2½ ton garage crane, and a 20 ton Weaver garage press. Sufficient equipment has been installed to give a thorough training in battery work. A special laboratory has been prepared and equipped with all types of ignition, starting, and lighting apparatus. Special attention is given to this phase of the work. The course is laid out on the unit basis, each unit complete in itself, thus making it possible for a student to take just those units in which he is found deficient.

METAL AND AUTOMOBILE FINISHING

The work offered in Metal and Automobile Finishing will cover the finishing of panels of metal, followed by metal cabinets, furniture, and automobiles. The preparation of metal surfaces for the priming coat is first taken up. The application of primer, filler, color, or graining coat, sealer, and surface coat, rubbing and polishing are taken in sequence, completely covering the processes necessary for building up a finish on metal. Removing old finish or patching up parts, enamelling of hood and fenders and preparing old surfaces for new finish will be included.

Difference of old and new methods of finishing automobiles will be covered by lecture and demonstration. Materials and their consistencies as well as preparations will be studied. Commercial practice in auto and metal finishing, care of materials and tools, as well as suggestions for handling metal finishing in school shops will receive specific attention.

SHEET METAL WORK AND PATTERN DRAFTING

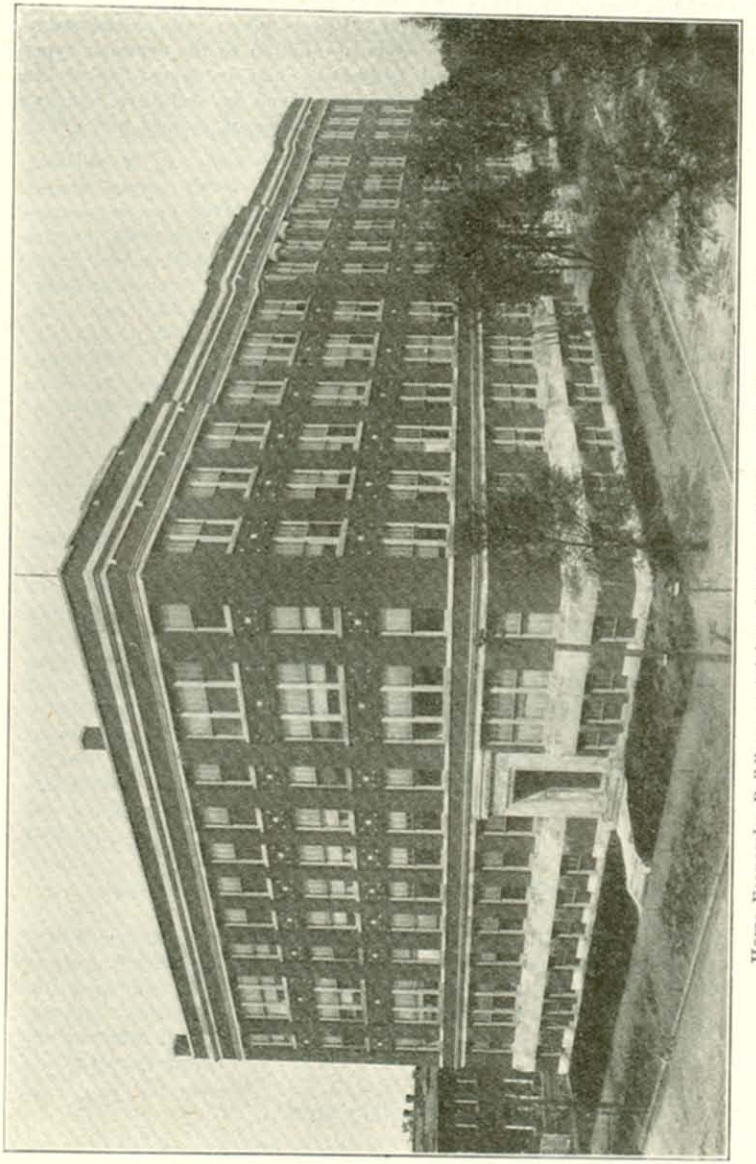
This course covers the application of such fundamental processes as cutting, forming, seaming, notching, wiring, hemming, and soldering, in the making of tinware, gutters, pipe intersections, cornice work, heating and ventilating work. All patterns used are drafted by the student; the pattern drafting involves parallel development, radial development, and triangulation.

ELECTRICAL WORK

A new shop has been prepared and courses are offered to meet the increasing demand for teachers of electrical work. New equipment is being installed as fast as conditions permit.

The first course of nine weeks takes up the essentials of electricity and deals largely with direct currents. A large part of the laboratory work consists of wiring for different types of circuits. Some time is devoted to the study of different types of generators, motors, and starting rheostats, also to the study and use of measuring instruments.

In the second nine weeks most of the time is given over to the study of the essentials of alternating currents as applied to the common types of alternating current motors and generators and to transformers. In addition to this, a number of exercises are given in armature winding and in the operation and testing of several types of motors and generators.



Home Economics Building, containing also the Library, Auditorium, and Offices.

COURSES IN HOUSEHOLD ARTS

FOODS

COOKERY I

In this first course in cookery, the meal is taken as a basis, and the composition and nutritive value of food materials and the processes of cookery best adapted to each class of foods are studied with reference to it. Principles are illustrated by a series of experiments or by the preparation of simple foods. The practical work is designed to acquaint the student with all the fundamental processes of cookery. It is planned to secure a thorough understanding of the theory and method involved in the cookery of the more essential foods rather than to cover the whole field of cookery. Sufficient repetition of processes is given to secure a fair degree of skill in manipulation of materials and utensils. The cost of food is studied in relation to the income of the home, and of the school, and the cost of lessons worked out to serve as a basis for comparison.

Fee. $5.00 Credits: 2

COOKERY II

This course is a continuation of Cookery I, and provides instruction and practice of more advanced character and a wider application of the principles studied in the first course. Among the subjects emphasized are: the choice and arrangement of appropriate garnishes, correct methods of service, comparison of recipes, substitution and variations, economical use of leftovers, adaptation of lessons to public school work, planning of simple and inexpensive meals to meet the requirements of a standard dietary, and the preparation and serving of a number of these meals. Throughout the course lectures are given and discussions held when occasion demands. Considerable reference work is deemed advisable, as it is one of the aims of the course to bring the students in contact with the newest and best books pertaining to this line of work. Class discussions are held on sequences of lessons and planning courses of study for public school classes.

Prerequisites: Cookery I, General Chemistry.

Fee: $5.00 Credits: 3

COQKERY III

Part I—Canning and Preserving. This work has as its aim the acquisition of knowledge of and skill in the processes and theory involved in canning and preserving. The work will include: Canning by the different methods—stewing or open kettle, oven, intermittent, cold pack; use of hot water bath, water seal outfit, steam pressure canner, aluminum pressure cooker; drying by means of commercial and home-made outfits; jelly making; conserves and marmalades; pickling.

Part II—Demonstration Work. The aim of this work is to train young women to serve as leaders and demonstrators in home emergency and county agent work. The course consists of the study of the demonstration lecture; its functions, scope, results, plans of procedure

methods of presentation, equipment necessary for different types of demonstrations, and practice in presenting demonstrations before student audiences.

Prerequisites: Cookery II, Food Chemistry, Food Study.
Fee: $5.00 Credits: 2

COOKERY IV—MEAL PREPARATION AND SERVING

Short series of lessons on foods suitable for breakfasts, luncheons, suppers, dinners, are followed by the planning and serving of a meal by a group of two, three or four students. Throughout this sequence, lessons are given to review the theory of cookery and the processes of manipulation. Other aims of this sequence are to give students added skill and rapidity in manuipulation; to teach simplicity, appropriateness, and good taste in service as well as the conventional methods; to emphasize the meal as the unit of cookery and to afford practical application of dietetic principles. Special stress is given to the methods of serving meals in public school classes.

Prerequisite: Cookery III.
Fee: $5.00 Credits: 2

EXPERIMENTAL COOKERY

This is a course in laboratory investigation and testing for advanced students to enable them to determine further facts and gain information for practical use in food preparation, and to aid in placing cookery upon a more accurate and scientific basis. The work consists of a qualitative and quantitative study of recipes, of the chemical and physical changes produced by heat, and in the combination of materials; study of the uses of different food materials and cookery apparatus.

Prerequisites. Cookery III and IV, Food Chemistry.
Fee: $5.00 Credits: 3

FOOD STUDY

The purpose of this course is to give the student a well organized body of knowledge relating to foods and their value to the body. Also, to consider the subject from a professional standpoint, its place in public school work, its relation to other subjects, sources of information and illustrative material available. The course begins with an elementary study of metabolism as a foundation for the detailed consideration of the nutritive value of various foods studied. This is followed by a classification of foods based on their chemical composition. These groups form the natural sub-division of the remainder of the course. The important foods under each class are studied as to source, production, market forms, chemical composition, fuel value, digestibility, place in diet, and principles of cookery, special emphasis being laid on those topics relating to nutritive value. The broader subjects of sanitation, inspection, and standards of purity are given due consideration.

Prerequisites: Cookery I, General Chemistry, Parallel Subjects are Cookery II, Food Chemistry. Credits: 2

DIETETICS I

The purpose if this course is to present the fundamental principles of human nutrition and their application to the feeding of individuals, families and larger groups under varying physiological, economic, and social conditions. It includes recitation and laboratory work and is designed to be used as a basis for practical work in dietetics as well as for organizing and teaching the subject in high school. Sherman's "Chemistry of Food and Nutrition" is used as a text for much of this work, but is supplemented by reference reading. A study is made of the functions and nutritive values of foods and the food requirement of individuals and groups of individuals. In the laboratory a study is made of the fuel values of foods; 100 calorie portions of foods are calculated, weighed and tabulated; family dietaries are planned with reference to nutritive needs and the cost with relation to the family income; the relation of dietetics to the most common diseases of nutrition is considered; suitable dietaries are planned and prepared in the laboratory. A careful study is made of the feeding of infants and young children; modification of milk is taught and dietaries for children are planned and cooked. Many problems of particular interest to teachers of Home Economics are taken up in the class work. Among these are the place of dietetics in the school course, the selection of subject matter, the adaptation of material and methods of presentation for high school pupils, books and pamphlets suitable for reference, and the application of dietetics to cookery.

Prerequisites: Cookery II, Food Chemistry, Food Study.
Fee: $2.00 Credits: 4

DIETETICS II

The purpose of this course is to give advanced students a broader understanding of problems of human nutrition, to acquaint them with original sources of information, and to give them familiarity with methods of research. The work includes recitations and laboratory work. The course includes a review of the principles of digestion and metabolism, the protein, energy, and ash requirement and the function in metabolism of the different proteins, vitamines and ash constituents of the diet. The body conditions under various nutritional deficiencies are studied, corrective dietaries are planned, menus prepared and their fuel value calculated. Hospital methods and practices are discussed. The latest medical theories and practice of diet are studied.

Prerequisites: Dietetics I, Chemistry of Nutrition.
Fee: $2.50 Credits: 4

CLOTHING AND TEXTILES

SEWING I

In this course fundamental processes of elementary sewing are given. Emphasis is placed upon good technique and high standards of workmanship. The subject matter, as in other clothing courses, may be considered in the following aspects: design, construction, hygiene, and economics of textile purchase, with particular emphasis given here to the selection of material and trimmings, comparison of home and shop-made garments as to durability, workmanship, and design, cost and ethics. The practical work consists briefly of straight line drafting; the making of useful, simple garments; study of the use and care of the machine; problems in repair work; machine work.

Fee: $1.00 Credits: 2

SEWING II

This course is a continuation of Sewing I. The technical work consists of further work in the construction of plain clothing, including children's garments. Both drafted and commercial patterns are studied and used. Throughout both these courses suggestions are made for adapting the class work for public, and other school classes. The clothing budget is the basis for the economic discussion.

Fee: $1.00 Credits: 2

TEXTILES

The aims of this work, which is given in connection with the above courses, are to give to students such knowledge of fabrics and textile materials as to enable them to select intelligently textile materials for school, household, and personal uses, to develop a social spirit with relation to the worker in shop, and factories, and to help students to adapt and use their knowledge of textiles in the teaching of public and vocational school classes in clothing. A short study is made of the early history of the textile arts and of the causes which led to the present conditions in the textile industry. Then follows an intensive study of the fabrics made from the four principal fibers of commerce, with emphasis on those points which affect the wearing quality, prices, and uses. The student is encouraged to make a collection of samples of textile fabrics for class room use. She is, through reference reading, made familiar with the literature of the subject.

DRESSMAKING I

This course includes work with drafted and commercial patterns. The system of drafting taught is simple and through its use the student gains self-reliance and independence in adapting and changing commercial patterns. Emphasis is placed upon appropriate lines, materials and colors. High standards of work and details of technique are taught. The finished problems include a wash skirt and wool dress. The place of each in the high school or vocational school course of study, and the methods of presenting the various phases of the work are developed

through discussion. The student furnishes all materials and supplies subject to the approval of the instructor.

Prerequisites: Sewing I, Drawing and Design.

Fee: $1.00 Credits: 2

DRESSMAKING II

This is a continuation of Dressmaking I. The aims are greater independence and originality, skill in handling different materials, speed in construction work, a broader understanding of the scope and content of subject matter in clothing and increased ability to plan and organize work. Drafting is continued in the making of the wash shirt waist. A silk dress is the final problem of the course. The subject of color is reviewed and emphasized in relation to suitability to wearer and occasion. Other topics of discussion are: wearing qualities of fabrics and their appropriateness to design, hygienic and economic aspects of clothing. Further professional work is also included.

Prerequisite: Dressmaking I.

Fee. $1.00 Credits: 2

ADVANCED DRESSMAKING AND DRAFTING

The course reviews the principles of drafting, their application, with a comparison of their advantages and disadvantages. Practice is given in the alteration of drafted patterns, by modeling on the dress form, and in the correct and efficient fitting of garments. The practical work will be developed largely in crinoline, muslin, and tissue paper. The final problem of the course is a dress which is to be an expression of the individuality of the wearer, and an exemplification of good design, color and workmanship.

Prerequisites: Sewing I, Dressmaking I and II, Drawing and Design.

Fee: $1.00 Credits: 4

MILLINERY

Designing, making, and trimming of hats with a view to developing originality, invention, and skill are the main purposes of this course. Stress is placed upon the artistic side of the work by the study of the harmony of color and line.

Prerequisites: Drawing and Design.

Fee: $3.00 Credits: 2

LAUNDERING

In this course the laundry problem is considered from the point of view of the housewife in connection with the house plan and the organization of work in the house, and from the point of view of the teacher in connection with school equipment and the course of study. The work is based upon a knowledge of the textile fabrics of which various garments are made, and of the chemical reactions involved in the action of reagents used. The laboratory work gives practice in all the processes involved in washing and ironing cotton, linen, woolen, silk, laces, and embroideries. The planning of laundry equipment for school or home, and the execution of the family laundry are among the problems con-

sidered. The work consists of discussions, demonstrations and laboratory work.

Prerequisites: General Chemistry, Textiles. Credit: 1

Fee: $1.00

ART

DRAWING AND DESIGN

The aim of this work is to gain an understanding of the principles of good design and color harmony, as a foundation for later courses in clothing, design and interior decoration. Emphasis is placed on the ability to appreciate good design. Principles are studied in consecutive lessons involving line arrangement, dark and light, and color. The work includes designs for borders, repeating patterns, panels, place cards, and articles of clothing. Special effort is made to relate all design to the larger problems of costume, home furnishing, and interior decoration. Much attention is given to the study of arrangements in color.

Credits: 3

Fee: $1.50

APPLIED DESIGN

The study of the general principles of design is continued and the work applied to the designing of problems in the textile field. Materials for household furnishings are studied and related to each other in texture and color. Original designs by the students are applied to textiles by means of stenciling, block printing and embroidery. Much attention is given to color harmony and color values. These materials are studied in relation to one another and also in relation to general schemes of color, as in a costume or in the various rooms of a house.

Prerequisites: Drawing and Design, Interior Decoration.

Credits: 2

Fee: $1.50

COSTUME DESIGN

This course aims to give in a practical way, an appreciative understanding of what artistic costume means. It will be closely related to dressmaking problems in all its phases. The subjects of line, proportion, balance and color harmonies, suitable to different individuals are studied, from the work of designers as pictured in magazines, and by the handling of actual materials. Color is emphasized by dyeing materials, thus aiding the student in the better understanding and analysis of color results. Alteration of designs, and choice of details for different individuals will be emphasized from the point of view of the teacher of dressmaking, or the purchaser of shop-made garments. Professional work of the course includes the place and character of costume design in a high school course, and the kinds and use of illustrative material to be procured.

Prerequisites: Drawing and Design, Dressmaking I and II.

Credits: 3

Fee: $1.00

INTERIOR DECORATION

The course is taken under two heads: first, the principles underlying good proportion and color harmony; second, the application of these principles to house planning and furnishing. The course is designed to enable the student to plan an attractive, comfortable house that may be built at a moderate cost; to apply artistic and economic principles in determining appropriate and artistic furnishings and decoration, and to select from the house furnishings now on the market, such as wall papers, rugs, furniture, etc., the most artistic and the best for the money expended. The professional side of the work is considered throughout the course with the idea that the student may teach the subject in high school.

Prerequisites: Drawing and Design.

Fee: $1.00 Credits: 3

MANAGEMENT

HOUSEHOLD MANAGEMENT

The course in Household Management is designed by means of class discussion, and related practical work at a practice cottage, to give students an insight into the organization and administrative work of the home. Budget making and account keeping are based on the work at the practice cottage. Sanitation, including heating, lighting, ventilation, plumbing, and the disposal of waste, are studied and discussed in their application to actual household problems. The house as to its plan, construction, and equipment is studied in its relation to initial expense, cost of maintenance, and efficiency in the work of the housewife. Consideration is given to the problem of organizing and relating subject matter, designated as Household Management, in the various courses in Home Economics given in the public or vocational schools.

Prerequisites: Cookery II, Food Chemistry. Credits: 3

INSTITUTIONAL MANAGEMENT

The purpose of the course is to acquaint women interested in housekeeping activitites of public institutions, dormitories, lunch rooms and hospitals, with the principles and practices involved in the management of such intitutions, so as to obtain the best results, within the organization, for the groups of individuals concerned. The practical side of the course includes the purchasing and examining of food stuffs; testing different brands of foods; planning weekly menus for school lunch rooms, hospitals and dormitories; visits to local institutions; examination of different types of furnishings and equipment. Discussions are held on the different phases of the work, the qualifications and duties of stewards, superintendents, housekeepers, directors of halls, matrons, and laundry managers; the general organization of the work, including service problems, records, accounts, inventories, regulating of expenditures; planning and general care of buildings and rooms for specific

purposes, study of dietaries; marketing; laundering; waste and refuse

Prerequisites: Cookery IV, Dietetics I.

Fee: $1.00 Credits: 3

FURTHER INFORMATION

Inquiries regarding the purpose and character of work offered at The Stout Institute, the regular courses of study or those of the summer session, the Bulletin, and other publications of the school; or inquiries regarding the qualifications of Stout graduates for the teaching of special subjects, should be addressed to

L. D. HARVEY,
President.

The Stout Institute,
Menomonie, Wisconsin.

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CALENDAR FOR 1920-1921

Fifteenth Annual Summer Session begins
July 26, 1920---Ends August 27, 1920

Eighteenth Regular Session begins
September 13, 1920---Ends June 3, 1921

First Semester ends January 28, 1921
Second Semester begins January 31, 1921

Holiday Vacation begins December 17, 1920
Holiday Vacation ends January 4, 1921